

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An information processing apparatus, comprising:
emitting means for emitting a plurality of lights whose wavelengths are different from each other to a living body;

dispersion means for dispersing the respective lights coming from the living body;

separation means for spatially color-dispersing ~~separating~~ a plurality of image components corresponding to the respective lights from an image pickup signal output as a result of image pickup by an image pickup element for the respective lights dispersed by the dispersion means; and

signal processing means for carrying out processing corresponding to the respective image components separated by the separation means.

Claim 2 (Original): The information processing apparatus according to claim 1,
wherein

the emitting means emits first lights, and second lights whose wavelength is different from that of first wavelength and which have dependence on an authentication subject existing inside the living body,

the dispersion means disperses the first lights coming from a surface of the living body and the second lights coming through inside of the living body,

the separation means separates a first image component corresponding to the first lights and a second image component corresponding to the second lights from an image pickup signal output as a result of image pickup by an image pickup element for the first lights and the second lights dispersed by the dispersion means, and

the signal processing means carries out processing corresponding to the first image component and the second image component, respectively.

Claim 3 (Original): The information processing apparatus according to claim 2, wherein

the signal processing means detects a state of positional misalignment of an image with respect to the second image component based on the first image component, and carries out authentication processing based on the second image component corrected according to a detection result.

Claim 4 (New): An information processing apparatus, comprising:

an emitter configured to emit a plurality of monochromatic lights whose wavelengths are different from each other to a living body;

a light dispersion mechanism configured to disperse the respective lights coming from the living body;

a light separator configured to spatially color-disperse a plurality of image components corresponding to the respective lights from an image pickup signal output as a result of image pickup by an image pickup element for the respective lights dispersed by the dispersion means; and

a signal processor configured to process corresponding respective image components separated by the light separator.

Claim 5 (New): The information processing apparatus according to claim 1, wherein

the emitter emits first lights, and second lights whose wavelength is different from that of first wavelength and which have dependence on an authentication subject existing inside the living body,

the light dispersion mechanism disperses the first lights coming from a surface of the living body and the second lights coming through inside of the living body,

the light separator separates a first image component corresponding to the first lights and a second image component corresponding to the second lights from an image pickup signal output as a result of image pickup by an image pickup element for the first lights and the second lights dispersed by the dispersion means, and

the signal processor carries out processing corresponding to the first image component and the second image component, respectively.

Claim 6 (New): The information processing apparatus according to claim 2, wherein the signal processor detects a state of positional misalignment of an image with respect to the second image component based on the first image component, and carries out authentication processing based on the second image component corrected according to a detection result.

Claim 7 (New): The information processing apparatus of Claim 1, wherein the separation means for spatially color-dispersing a plurality of image components is configured as a filter array means having four adjacent pixel filters forming a lattice pattern.

Claim 8 (New): The information processing apparatus of Claim 4, wherein the light separator for spatially color-dispersing a plurality of image components as configured as a filter array having four adjacent pixel filters forming a lattice pattern.